

### REMARKS

Applicant extends its thanks to Examiner Reddick for her participation in the telephone interview held this same date and for her assistance in resolving outstanding issues.

#### I Claim Rejections - 35 USC §112

Claims 1-10 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention.

At paragraph 2.A) of the Action claim 1 was rejected because "the recited 'urethane-based thickener' per claim 1 constitutes indefinite subject matter as per the metes and bounds of such engender an indeterminacy in scope." This was the same basis of rejection as in the 1<sup>st</sup> Action. Applicant has carefully considered the Examiner's suggestion of adding a Markush group of specific urethane-based thickeners, but does not believe such a limitation to be appropriate. Instead, Applicant has amended claim 1 (and all other claims referring to "urethane-based thickener" to the term "associative thickener" which is defined in the specification and is specific and definite. Applicant believes the specification is clear that any and all "associative thickeners" would be acceptable. (Emphasis added). Referring to page 6, lines 26-33, the specification defines the term "associative thickener" as "emulsions based on urethane compounds" and sites several "examples" in Table 1. Those examples are not intended to be limiting but rather illustrative. Line 32 specifically states that "some of the thickeners" may be found in Table 1. A Markush group would be inappropriate because Applicant never limited itself to those thickeners described in the specification. Reconsideration of these claims as amended is respectfully requested.

Claims 1 and 4 were also rejected because "the recited 'sulfonate-containing mixture' per claims 1 and 4 constitute indefinite subject matter. . ." These claims, as well as claim 5, were amended to delete the phrase "or sulfonate-containing mixture" and overcome this basis of rejection. Moreover, claim 4 has been

amended to define the term "alkaline earth metal sulfonate" as "comprised of an alkaline earth metal selected from the group consisting of Calcium, Magnesium, Sodium and Barium compounded with a sulfonate which said sulfonate may be either alkaline or neutral." With regard to the deleted phrase "sulfonate-containing mixture", this phrase was redrafted as the more limiting phrase, "alkaline earth metal sulfonate mixed with at least one additive selected from the group consisting of (the stated Markush group)" in new independent claim 11 and dependent claims 12-20. The foregoing amendments, together with those that follow, are believed to place claims 1, 4 and 5 in condition for allowance.

Claims 4 and 6 were also rejected as indefinite because the term "overbased" was not art-recognized terminology. Applicant merely uses this term synonymously with the term "alkaline". The term "overbased" has been replaced with the term "alkaline" in all relevant claims.

Claim 5 was rejected because "the recited 'linear alcohol/hydrocarbon mixtures'" were believed to constitute indefinite subject matter. This phrase was deleted and the new phrase "mixtures of a linear alcohol and a hydrocarbon" added. Because claims 2 depend from claim 1, applicant further believes this claim to be in condition for allowance as well.

Claim 6 was rejected because "the recited 'wherein said alkaline earth metal sulfonate is calcium overbased sulfonate structurally modified to contain crystalline calcium carbonate' per claim 6 engenders ambiguous and confusing claim language". Applicant intended this phrase to mean a mixture of calcium sulfonate and calcium carbonate and has amended claim 6 accordingly. Although the term amendment uses the phrase "mixed with", there may be some molecular interaction between the alkaline earth metal sulfonate and the crystalline calcium carbonate. The phrase "mixed with", therefore, should be interpreted broadly.

Finally, at paragraph 4 of the subject Office Action, claims 1-10 were rejected under 35 U.S.C. §112, first paragraph, "because the specification, while being enabling for specific urethanes as housed in Table 1, does not reasonably

provide enablement for compounds falling within the broad scope of the claimed "urethane based thickener". Applicant respectfully disagrees and reiterates its argument that the specification is clear that any and all "associative thickeners" would be acceptable. (Emphasis added). Referring to page 6, lines 26-33, the specification defines the term "associative thickener" as "emulsions based on urethane compounds" and sites several "examples" in Table 1. Those examples are not intended to be limiting but rather illustrative. Line 32 specifically states that "some of" the thickeners may be found in Table 1. The specification would and does enable any person skilled in the art to make and/or use the invention commensurate in scope with claims 1-10. Reconsideration of this rejection is therefore earnestly solicited.

## **II COPY OF CLAIMS**

A copy of amended claim 1 with changes highlighted is attached hereto as Appendix "A". A copy of all claims, including claim 1 as amended but without highlights, is also attached hereto as Appendix "B".

## **III FEES**

No additional fees for claims are due as a result of this amendment. The appropriate fee for a three (3) month extension of time to respond to the Office Action is enclosed herewith.

## **IV CONCLUSION**

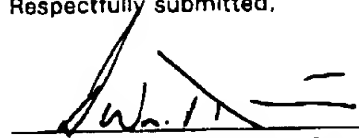
Based on the above amendments and remarks, Applicant believes this case is in condition for allowance and, therefore, a prompt Notice of Allowance is requested.

Applicant invites Examiner Reddick to contact the below signed Attorney for an additional telephone interview before mailing her next Office Action.

Please address all correspondence regarding the above-captioned matter to me at the **NEW ADDRESS** listed below.

Respectfully submitted,

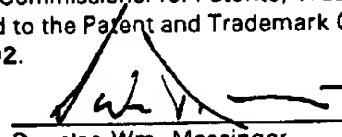
Date: 11-06-02

  
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**Certificate of Transmission under 37 CFR 1.8**

I hereby certify that this Response to the Office Action dated May 6, 2002 is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to Commissioner for Patents, Washington, D.C. 20231, and being facsimile transmitted to the Patent and Trademark Office Fax No. (703) 305-3597 on November 6, 2002.

Date: November 6, 2002

  
Douglas Wm. Massinger  
Attorney for Applicant

**Appendix A**  
**Claims as amended - highlights added**

- 1 1. (Amended Twice) A method of forming an amine-free emulsion of an alkaline  
2 earth metal sulfonate compound, said method comprising the steps of:
- 3       a) adding [a urethane-based] an associative thickener [compound] to  
4       water;  
5       b) dispersing said associative thickener [compound] in said water by  
6       mixing until a uniform solution of said water and said associative  
7       thickener is formed;  
8       c) adding an alkaline earth metal sulfonate [or sulfonate-containing  
9       mixture] to said solution of said water and said associative thickener;  
10       and  
11       d) mixing said alkaline earth metal sulfonate [or sulfonate-containing  
12       mixture] together with said solution of said water and said associative  
13       thickener until a uniform emulsion is formed.
- 1 3. (Amended Once) The method of forming an amine-free emulsion of an alkaline  
2 earth metal sulfonate compound of claim 1, wherein said [urethane-based]  
3 associative thickener [compound] is [a] nonionic[, associative thickener].
- 1 4. (Amended Once) The method of forming an amine-free emulsion of an alkaline  
2 earth metal sulfonate compound of claim 1, wherein said alkaline earth metal  
3 sulfonate [or said sulfonate-containing mixture] is comprised of an alkaline earth  
4 metal selected from the group consisting of Calcium, Magnesium, Sodium and  
5 Barium [overbased] compounded with a sulfonate which said sulfonate may be  
6 either alkaline or neutral.
- 1 5. (Amended Once) The method of forming an amine-free emulsion of an alkaline  
2 earth metal sulfonate compound of claim 1, wherein said [sulfonate-containing  
3 mixture is comprised of a] alkaline earth metal sulfonate is mixed with at least one  
4 additive selected from the group consisting of oils, waxes, microcrystalline waxes,  
5 petrolatums, tall oil fatty acids, calcium salts of oxidized petrolatums, nonionic  
6 surfactants, and [linear alcohol/hydrocarbon mixtures] mixtures of a linear alcohol  
7 and a hydrocarbon.
- 1 6. (Amended Once) The method of forming an amine-free emulsion of an alkaline  
2 earth metal sulfonate compound of claim 1, wherein said alkaline earth metal  
3 sulfonate is mixed with [calcium overbased sulfonate structurally modified to  
4 contain] crystalline calcium carbonate.

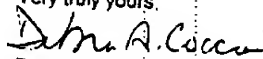
**Appendix B****All claims pending as of November 6, 2002 Response**

- 1 1. (Amended Twice) A method of forming an amine-free emulsion of an alkaline  
2 earth metal sulfonate compound, said method comprising the steps of:
- 3 a) adding an associative thickener to water;  
4 b) dispersing said associative thickener in said water by mixing until a  
5 uniform solution of said water and said associative thickener is  
6 formed;  
7 *BI* c) adding an alkaline earth metal sulfonate to said solution of said water  
8 and said associative thickener; and  
9 d) mixing said alkaline earth metal sulfonate together with said solution  
10 of said water and said associative thickener until a uniform emulsion  
11 is formed.
- 1 2. (Amended Once) An amine-free emulsion of an alkaline earth metal sulfonate  
2 compound prepared in accordance with the method of claim 1.
- 1 3. (Amended Once) The method of forming an amine-free emulsion of an alkaline  
2 earth metal sulfonate compound of claim 1, wherein said associative thickener is  
3 nonionic.
- 1 4. (Amended Once) The method of forming an amine-free emulsion of an alkaline  
2 earth metal sulfonate compound of claim 1, wherein said alkaline earth metal  
3 sulfonate is comprised of an alkaline earth metal selected from the group  
4 consisting of Calcium, Magnesium, Sodium and Barium compounded with a  
5 sulfonate which said sulfonate may be either alkaline or neutral.
- 1 5. (Amended Once) The method of forming an amine-free emulsion of an alkaline  
2 earth metal sulfonate compound of claim 1, wherein said alkaline earth metal  
3 sulfonate is mixed with at least one additive selected from the group consisting of  
4 oils, waxes, microcrystalline waxes, petrolatums, tall oil fatty acids, calcium salts  
5 of oxidized petrolatums, nonionic surfactants, and mixtures of a linear alcohol and  
6 a hydrocarbon.
- 1 6. (Amended Once) The method of forming an amine-free emulsion of an alkaline  
2 earth metal sulfonate compound of claim 1, wherein said alkaline earth metal  
3 sulfonate is mixed with crystalline calcium carbonate.
- 1 7. An amine-free emulsion of an alkaline earth metal sulfonate compound  
2 prepared in accordance with the method of claim 3.
- 1 8. An amine-free emulsion of an alkaline earth metal sulfonate compound  
2 prepared in accordance with the method of claim 4.

Date: 02/20/02 Serial No.: 09/621,857 Art Unit: 1713 Atty Docket No.: 4547-8  
Applicant: GEORGE CLARK, PAUL MORRISON AND PEDRO VELIS  
Title: AMINE-FREE EMULSIFICATION OF ALKALINE EARTH METAL  
SULFONATES

Will the Commissioner of Patents and Trademarks Office kindly acknowledge receipt of the following cited documents by date stamping and returning this card to the attorney of record: 1) A Response to the Examiner's Office Action mailed September 20, 2001; 2) A Petition for Extension of Time under 37 CFR 1.136(a); 3) Check # 3435 in the amount of \$200.00 for the filing fee; 4) A Certificate of Mailing; and 3) A return postcard. Thank you.

Very truly yours,



Debra A. Coccia

Secretary to Douglas Wm. Massinger